

REMARKS

1. Claims 1, 6, 7, 16, 17 and 20 have been amended and claims 2-5, 8-15 and 18-19 have been canceled in the present response. Claims 1, 6, 7, 16, 17 and 20 remain in the application.

Amended claim 1 is directed to a method whereby a serving system including a serving MSC (the serving system defining a system to which a mobile unit has roamed), obtains a termination restriction code parameter from the originating system of the mobile unit. The termination restriction code parameter is obtained responsive to registering the mobile unit with the serving MSC and indicates whether Roamer Access Number (RAN) calls may be terminated at the mobile unit. Sometime after registering the mobile unit and obtaining the termination restriction code parameter, the serving MSC receives a RAN call request for the mobile unit and determines based on the termination restriction code parameter without requiring further message exchange with the originating system, whether to terminate the RAN call request to the mobile unit. The serving MSC denies termination of the RAN call request if the termination restriction code parameter indicates that the mobile unit is not permitted to terminate RAN calls while roaming at the serving MSC.

It is noted that prior to applicant's invention, the termination restriction code parameters often indicated by default that termination is unrestricted; or alternatively, the termination restriction code parameters could be set to deny all calls to the mobile unit (as disclosed in the applied Hanson reference). Some time later, when the serving MSC received a call request for the mobile unit, it initiated a message sequence with the home MSC to determine the status of the termination restriction code field. In the prior art, this was accomplished every time a RAN call request was received for a mobile unit, which was wasteful of network resources particularly where the home system has determined a priori not to permit RAN terminations to the mobile unit. Applicant's invention contemplates a new termination restriction code parameter that indicates whether or not RAN calls may be terminated at the mobile unit, which parameter is sent to the serving system from the originating system responsive to registration of the mobile unit with the serving system. In such manner, greater flexibility is provided in the termination restriction code parameter for example, to deny RAN terminations while permitting other types of call terminations (in contrast to the prior art "all or nothing" approach). Applicant's approach

thereby permits call terminations for certain subscribers, for example prepaid service subscribers, so long as the termination is not achieved via a RAN. Moreover, upon receiving a call request, the serving MSC determines based on the termination restriction code parameter without requiring further message exchange with the originating system, whether to terminate the RAN call request to the mobile unit. In such manner, needless intersystem messages are eliminated.

Amended claim 6 (formerly an independent claim) depends from claim 1 and covers the case where the incoming call request is terminated (or allowed). Amended claim 7 (formerly dependent on claim 6) now depends from claim 1 and covers the case where the incoming call request is for a prepaid call.

Amended claim 16, directed to a mobile switching center, now recites means for receiving responsive to registering a roaming mobile unit with the mobile switching center, a termination restriction code parameter indicating whether Roamer Access Number (RAN) calls may be terminated at the mobile unit; means for receiving a Roamer Access Number (RAN) call request for the roaming mobile unit; means for determining if the RAN call request has been received for a roamer port on the mobile switching center; and means for terminating the call request at the roaming mobile unit if the call request was received via a roamer port on the mobile switching center and if the termination restriction code is set to allow roamer port access calls.

Amended claim 17, formerly reciting “means for receiving a call request” has been amended to recite “means for receiving a RAN call request” and amended claim 20, formerly reciting “means for denying the call request” has been amended to recite “means for denying termination of the call request.”

2. Claim 1 was rejected under 35 U.S.C. 102(e) as being anticipated by Hanson (US Patent No. 6,516,194). Claim 1 has been amended herein. Amended claim 1 is believed to patentably distinguish over the Hanson reference for reasons described below.

Hanson describes a “Roaming Solution” network system that is designed to mitigate a Home Provider’s exposure to credit risk when providing roaming services to credit limited subscribers. The Roaming Solution relies upon a National Location Register (NLR) positioned

between the HLR of the Home Provider and the VLR of the “Local Roaming Provider” (a.k.a. Serving Provider). The NLR intercepts messages between the HLR and VLR and is adapted to perform HLR and VLR functions, such that the NLR looks like an HLR with respect to the VLR and looks like a VLR with respect to the HLR. It is noted, Hanson describes that the NLR is capable of disabling call terminations to a roaming subscriber during the Registration Notification Process. This is accomplished by the NLR setting the termination restriction code to 1 (“termination denied”), causing no incoming call to be delivered to the wireless roaming subscriber. Col. 10, lines 45-48. Thus, to the extent Hanson discloses restricting call terminations via a termination restriction code parameter, it denies all terminations regardless of type. There is no teaching or suggestion in the Hanson patent that the termination restriction code parameter could specify denying calls based on the mode of termination, i.e., to deny RAN terminations while permitting other types of call terminations. Accordingly, amended claim 1 patentably distinguishes over the Hanson patent.

3. Claims 2-20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson in view of Talagery (US Patent No. 6,044,269). Claims 2-5, 8-15 and 18-19 have been canceled. Remaining claims 6, 7, 16, 17 and 20 have been amended herein. Amended claims 6, 7, 16, 17 and 20 are believed to patentably distinguish over the combination of Hanson and Talagery for reasons described below.

Talagery describes a method for enabling or denying call terminations to a mobile station via a roamer port. When a calling party attempts to contact a roaming mobile station via a roamer port, the serving MSC consults a database to determine whether to enable or deny the call termination. The database is created/updated by the vendor associated with the serving MSC based on prior agreements. Col. 3, lines 12-18. That is, the serving MSC identifies the HLRs of various service providers as “cooperating” or “non-cooperating” based on whether the service provider(s) have agreed to accept charges for roamer port calls from the serving system. Then, upon receiving a call request for a roaming mobile station via a roamer port, the serving MSC will deny termination of the call request if the HLR is associated with a “non-cooperating”

provider or will accept termination of the call request if the HLR is associated with a “cooperating” provider.

The Talagery patent was relied upon for teaching the step of passing a termination restriction code parameter from a HLR to a serving MSC. Respectfully, Talagery does not teach passing any type of termination restriction code parameter from a HLR to a serving MSC, not to mention a termination restriction code parameter that would deny roamer port termination requests. Rather, to the extent Talagery teaches that a serving MSC may deny terminations to a particular mobile station via a roamer port, the determination is made based on the serving MSC consulting a database, independent of any message transmissions from the HLR to the serving MSC. The database identifies various service providers as cooperating or non-cooperating based on the presence or absence of prior agreements, not on termination restriction code parameters received from various HLRs. Accordingly, even if Talagery could be combined with the Hanson patent, it does not overcome the deficiencies of the Hanson patent relating to passing a termination restriction code parameter that would deny roamer port termination requests. Amended claims 6, 7, 16, 17 and 20 patentably distinguish over the combination of Hanson and Talagery because they include limitations relating to passing a termination restriction code parameter from a HLR to a serving MSC indicating whether Roamer Access Number (RAN) calls may be terminated at the mobile unit.

4. In view of the above amendments and remarks, a notice of allowance of claims 1, 6, 7, 16, 17 and 20 is respectfully requested. The Commissioner is authorized to charge any additional fees that may be required, or credit any overpayment, to Lucent Technologies Deposit Account No. 12-2325.

Respectfully submitted,

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